Title: A Method For Allocating Bits and Power in Multi-Carrier Communication System APR 1 1 2085 Applicants: Subramanian, et al. Attorney Docket No. 7416/78248 - PPA1 That Requires Smallest Excess Carriers Such That The Carrier Power To Carry Additional Bit Distribute Excess Power To Excess Power Exhausted? Is Target Bit Rate Met Or 112 Has Priority Bits To Carriers With Zero Bits **Dropping Bits And Allocating** Improve Bit Allocation By Considering Fractional Bit Improve Bit Allocation By 110 Allocation That Requires Smallest Gain To Carry Additional Bit Has Priority Carriers Such That The Carrier Distribute Excess Power To Excess Power Exhausted? Is Target Bit Rate Met Or 114 108 112 Without Violating Bit Error Rate Constraints Assuming Nominal Compute Gain For Extra Bit Compute Excess Power For 106 Estimate Signal To Noise Make Initial Bit Allocation Ratios In Each Carrier Power In Each Carrier Compute Total **Excess Power** Extra Bit 104 102 9